REMARKS

Claims 1-28 are currently pending in the subject application and are presently under consideration. Favorable reconsideration of the subject patent application is respectfully requested in view of the comments herein.

I. Rejection of Claims 1-6, 8, 11-21, 23 and 26-28 Under 35 U.S.C. §102(b)

Claims 1-6, 8, 11-21, 23 and 26-28 stand rejected under 35 U.S.C. §102(b) as being anticipated by DiCarlo (U.S. Patent No. 5,519,726). It is respectfully requested that this rejection be withdrawn for at least the following reason. DiCarlo does not teach or suggest each and every limitation as recited in the subject claims.

> A single prior art reference anticipates a patent claim only if it expressly or inherently describes each and every limitation set forth in the patent claim. *Trintec Industries, Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 63 USPQ2d 1597 (Fed. Cir. 2002); *See Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the ... claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

The claimed invention relates generally to synchronizing modules within a control system. More specifically, the invention as claimed enables synchronization of one or more control modules with a coordinated system time based at least in part upon a sampling interval associated with the one or more control modules. To that end, independent claim 1 recites a ***...module having an activation interval for controlling periodic activation relative to at least one of an input and an output thereof, wherein the module is programmed to synchronize the activation interval thereof relative to a coordinated system time base value.*** Independent claims 13, 18, and 19 recite similar limitation(s) - DiCarlo does not disclose such claimed aspect(s).

DiCarlo, like the claimed invention, relates to synchronizing modules within a control system based at least in part upon a coordinated system time. The manner in which DiCarlo reaches that end, however, is in stark contrast to the invention as recited in the independent claims. More particularly, the ***activation interval*** as claimed enables delay of sampling by a module until a coordinated system time value reaches an integer multiple of a sampling interval

internal to the module. A detailed example illustrating utilization of such ***activation interval*** can be found at page 11, lines 10-17 of the subject specification. In contrast to synchronization of an internal sampling interval with a coordinated system time by way of ***an activation interval***, DiCarlo discloses synchronization of a module by way of an internal clock associated with a disparate module. In more detail, DiCarlo discloses a plurality of modules that each have an internal clock, wherein the internal clock is desirably synchronized with a coordinated system time. Due to timing delays and imperfect internal clocks, however, the internal clocks can vary from the coordinated system time. To minimize such imperfections, DiCarlo discloses associating a quality metric with times relating to each of the plurality of modules, wherein the time associated with the highest measure of quality is utilized as a base time by which to synchronize the plurality of modules. (*See* col. 2, lines 10-16). As DiCarlo fails to disclose synchronizing a programming module by way of ***an activation interval*** associated therewith, DiCarlo cannot disclose or suggest ***programming a module to synchronize the activation interval thereof relative to a coordinated system time base value***. In the portion of DiCarlo cited by the Examiner, rather than teach such claimed aspect(s), DiCarlo generally discloses synchronization of modules with a coordinated system time without indicating a manner by which such modules are synchronized. (*See* col. 5, line 66 – col. 6, line 7).

Furthermore, the Examiner asserts that DiCarlo teaches that modules are programmed to execute an action (*e.g.*, sampling) with respect to a coordinated system time, and therefore DiCarlo teaches the claimed invention. Although DiCarlo may teach synchronization of modules with respect to a coordinated system time, the manner by which DiCarlo achieves such synchronization is in stark contrast to the claimed invention. More particularly, DiCarlo discloses synchronization between multiple modules based at least in part upon a quality metric associated with timing information relating to a module, while the claimed invention recites ***programming a module to synchronize the activation interval thereof relative to a coordinated system time base value.*** As noted *supra*, DiCarlo fails to teach or suggest that a module can be associated with ***an activation interval***, let alone ***synchronization of the activation interval... relative to a coordinated system time base value*** as in applicants' claimed invention.

In view of at least the forgoing, it is respectfully submitted that DiCarlo does not teach or suggest applicants' invention as recited in the subject claims, and withdrawal of this rejection is requested.

II. Rejection of Claims 1-6, 8, 11-21, 23 and 26-28 Under 35 U.S.C. §102(b)

Claims 1-6, 8, 11-21, 23 and 26-28 stand rejected under 35 U.S.C. §102(b) as being anticipated by Husted, *et al.* (U.S. 5,887,029). It is respectfully requested that this rejection be withdrawn for at least the following reason. The cited reference does not teach or suggest each and every limitation as recited in the subject claims.

Husted *et al.* discloses an industrial controller that transmits a time conditional command, with an execution time value T, to at least two I/O modules on a communication link. (*See* Col. 2, Lines 17-32). Such I/O modules are programmed to perform predetermined control actions only after receiving the time conditional commands but not until a system time value has attained a predetermined mathematical relationship to T. (*Id.*). Thus, Husted *et al.* does not disclose a ***module having an interval to control periodic activation relative to an output.*** Rather, the mathematical relationship between T and the system time value activates the performance of the control actions. Since the mathematical relationship is determined externally from the module of Husted *et al.* and transmitted from a central source, it is a system-wide aspect that emanates from a single industrial controller. Hence, the cited reference does not provide for a module within the system having an ***activation interval.*** In addition, the cited reference discloses such control actions as being relative to a time conditional command, but not ***relative to an output***, as in the claimed invention. Husted *et al.* does not teach or suggest a ***module having an activation interval for controlling periodic activation relative to an output.***

In view of at least the above comments, it is readily apparent that this rejection should be withdrawn.

III. Rejection of Claims 7 and 22 Under 35 U.S.C. §103(a)

Claims 7 and 22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over DiCarlo (U.S. 5,519,726) in view of Benson, *et al.* (U.S. 6,202,085). It is respectfully submitted that this rejection should be reversed for at least the following reasons. Neither DiCarlo nor Benson *et al.* individually or in combination, teach or suggest all limitations recited in the subject claims. Claims 7 and 22 depend from independent claims 1 and 19, respectively, and Benson, *et al.* does not make up for the aforementioned deficiencies of DiCarlo regarding these claims and

does not teach or suggest applicants' claimed invention. Accordingly, withdrawal of this rejection is requested.

IV. Rejection of Claims 7 and 22 Under 35 U.S.C. §103(a)

Claims 7 and 22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Husted, *et al.* in view of Benson, *et al.* (U.S. 6,202,085). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Benson *et al.* does not make up for the aforementioned deficiencies of Husted *et al.* regarding claims 1 and 19, from which the subject claims respectively depend. Hence, the cited art, individually or in combination, fail to teach or suggest all the limitations recited in the subject claims. Accordingly, applicants' representative requests withdrawal of this rejection.

V. Rejection of Claims 9, 10, 24 and 25 Under 35 U.S.C. §103(a)

Claims 9, 10, 24 and 25 stand rejected under 35 U.S.C. §103(a) as being unpatentable over DiCarlo in view of Ernst (EP 0385134). It is respectfully submitted that this rejection should be withdrawan for at least the following reasons. Claims 9 and 10 depend from independent claim 1, and claims 24 and 25 depend from independent claim 19 - Ernst fails to make up for the aforementioned deficiencies of DiCarlo with respect to these independent claims. Hence, neither DiCarlo nor Ernst, individually and in combination, teach or suggest all the limitations as recited in the subject claims. This rejection should be withdrawn.

VI. Rejection of Claims 9, 10, 24 and 25 Under 35 U.S.C. §103(a)

Claims 9, 10, 24 and 25 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Husted, *et al.* (U.S. 5,887,029) in view of Ernst (EP 0385134). Applicants' representative respectfully submits that Ernst fails to make up for the aforementioned deficiencies of Husted *et al.* regarding independent claims 1 and 19 (from which the subject claims respectively depend). Accordingly, this rejection should be withdrawn.

CONCLUSION

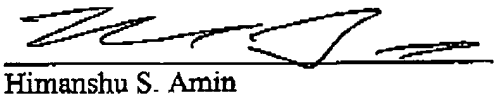
The present application is believed to be in condition for allowance in view of the above comments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [ALBRP196US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

AMIN & TUROCY, LLP



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